

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): An interface circuit for inputting/outputting a signal between first and second apparatuses having respective different power units, ~~respectively~~[[,]] comprising:

a power node [[to]] which is coupled to a first power voltage that is supplied from the power unit of said first apparatus ~~is outputted~~;

a 3-state buffer which is driven by a second power voltage that is supplied from the power unit of said second apparatus and in which [[the]] an output of [[the]] a signal that is supplied from said second apparatus is controlled by an electric potential at said power node; and

an analog switch which is driven by said second power voltage and in which a connection between an output side of said 3-state buffer and a logic circuit in said first apparatus is controlled by the electric potential at said power node.

Claim 2 (Currently Amended): An interface circuit for inputting/outputting a signal between first and second apparatuses having respective different power units, ~~respectively~~[[,]] comprising:

a power node ~~[[to]]~~ which is coupled to a first power voltage that is supplied from the power unit of said first apparatus ~~is outputted~~;

a voltage detector which detects a voltage at said power node and outputs a control signal when said voltage exceeds a reference voltage;

a 3-state buffer which is driven by a second power voltage that is supplied from the power unit of said second apparatus and in which ~~[[the]]~~ an output of ~~[[the]]~~ a signal that is supplied from said second apparatus is controlled by an electric potential at said power node; and

an analog switch which is driven by said second power voltage and in which a connection between an output side of said 3-state buffer and a logic circuit in said first apparatus is controlled by said control signal.

Claim 3 (Currently Amended): An interface circuit for inputting/outputting a signal between first and second apparatuses having respective different power units, ~~respectively~~~~[[,]]~~ comprising:

a power node ~~[[to]]~~ which is coupled to a first power voltage that is supplied from the power unit of said first apparatus ~~is outputted~~;

a voltage detector which outputs a control signal when a voltage at said power node exceeds a reference voltage;

a 3-state buffer which is driven by a second power voltage that is supplied from the power unit of said second apparatus, which controls ~~[[the]]~~ a signal that is supplied

from said second apparatus in accordance with a control voltage that is applied to a control terminal thereof, and which supplies said signal to a logic circuit in said first circuit; and

an analog switch which is driven by said second power voltage and in which a connection between said power node and the control terminal of said 3-state buffer is controlled by said control signal to provide the control voltage.

Claim 4 (New): An interface circuit comprising:

a first circuit, and a first power unit that supplies power voltage to the first circuit;
a second circuit, and a second power unit that supplies power voltage to the second circuit;

a 3-state buffer that sends data from the second circuit to the first circuit;
a protective diode, connected in a reverse direction between a data input terminal of the first circuit and a power output terminal of the first power unit, that protects the first circuit,

wherein the 3-state buffer has a driving terminal that receives the power voltage from the second circuit as a driving voltage, and a control terminal that receives the power voltage from the first circuit as a control voltage; and

an analog switch that prevents current produced by a potential difference between the driving voltage and control voltage from flowing to the protective diode, by cutting off sending of the data from a data output terminal of the 3-state buffer to the

data input terminal of the first circuit when supply of the power voltage from the first power unit is terminated.

Claim 5 (New): The interface circuit of claim 4, wherein the analog switch is coupled to the data output terminal of the 3-state buffer, and cuts off a connection between the 3-state buffer and the first circuit responsive to the power voltage supplied by the first power unit.

Claim 6 (New): The interface circuit of claim 5, wherein the analog switch has an input directly coupled to the first power circuit.

Claim 7 (New): The interface circuit of claim 5, further comprising:

a voltage detector that detects a voltage level of the power voltage supplied by the first power unit, compares the detected voltage level to a reference voltage level, and provides a detector signal indicative of the comparison,

the analog switch cutting sending off of the data responsive to the detector signal.

Claim 8 (New): The interface circuit of claim 4, further comprising:

a voltage detector that detects a voltage level of the power voltage supplied by the first power unit, compares the detected voltage level to a reference voltage level,

and provides a detector signal indicative of the comparison,

wherein the analog switch has an input terminal coupled to the power voltage supplied by the first power unit and an output terminal coupled to the control terminal of the 3-state buffer,

the analog switch providing the power voltage as the control voltage to the 3-state buffer to control sending of the data by the 3-state buffer, responsive to the detector signal.